AIR QUALITY PERMIT

Issued To: Taylor Gas Compression, Inc.
1756 Cypress Manor Drive
Henderson, NV 89012

Permit: #2843-03
Administrative Amendment
Request Received: 07/20/05
Department Decision on
Administrative Amendment: 09/07/05
Permit Final: 09/23/05
AFS #: 101-0014

An air quality permit, with conditions, is hereby granted to Taylor Gas Compression, Inc. (TGC), pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq*., as amended, for the following:

SECTION I: Permitted Facilities

A. Plant Location

TGC owns and operates a natural gas compressor station and associated equipment located in the SE¼ of the SE¼ of Section 35, Township 33 North, Range 1 West, in Toole County, Montana. The facility is known as the North Dunkirk Compressor Facility. A complete listing of the permitted equipment is contained in the permit analysis.

B. Current Permit Action

On July 20, 2005, the Department of Environmental Quality (Department) received a letter from TGC updating the permitted equipment listed in Section I.A of the permit analysis. One 1978, 650-horsepower (hp) White Superior 6G825 compressor engine and one 1981 0.750-million British thermal unit per hour (MMBtu/hr) Hycon 81-91 heater were removed from the facility.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. Emissions from the 500-hp Caterpillar G-398-NA compressor engine shall be controlled with a non-selective catalytic reduction (NSCR) unit and shall not exceed the following (ARM 17.8.752):

NO_X	2.21 lb/hr
CO	3.31 lb/hr
VOC	1.10 lb/hr

2. TGC shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over six consecutive minutes (ARM 17.8.304).

3. TGC shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over six consecutive minutes (ARM 17.8.304).

4. TGC shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).

5. TGC shall treat all unpaved portions of the haul roads, access roads, parking lots, or general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.4 (ARM 17.8.749).

B. Testing Requirements

1. The 500-hp Caterpillar G-398 compressor engine shall be tested concurrently for nitrogen oxide (NO_X) and carbon monoxide (CO) and compliance demonstrated with the conditions contained in Section II.A.1 on an every five-year basis or another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.749).

2. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

3. The Department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. TGC shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

   Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used to calculate operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

2. TGC shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745, that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit. The notice must be submitted to the Department, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).

3. All records compiled in accordance with this permit must be maintained by TGC as a permanent business record for at least five years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

SECTION III: General Conditions

A. Inspection – TGC shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

B. Waiver – The permit and the terms, conditions, and matters stated herein shall be deemed accepted if TGC fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving TGC of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*. (ARM 17.8.756).

D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties, or other enforcement action as specified in Section 75-2-401, *et seq*., MCA.

E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.

F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by the Department at the location of the source.

G. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by TGC may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.

Permit Analysis
Taylor Gas Compression, Inc.
Permit #2843-03

I. Introduction/Process Description

Taylor Gas Compression, Inc. (TGC) owns and operates a natural gas compressor station and associated equipment located in the SE¼ of the SE¼ of Section 35, Township 33 North, Range 1 West, in Toole County, Montana. The facility is known as the North Dunkirk Compressor Facility.

A. Permitted Equipment

This TGC facility includes the following equipment:

- One 1964, 500-horsepower (hp) Caterpillar G-398-NA compressor engine with a non-selective catalytic reduction (NSCR) unit;
- One 250 thousand British thermal unit per hour (MBtu/hr) NATCO reboiler;
- One 250-barrel (bbl) sealed tank;
- One 1989 MYCM Refrigeration Unit (electric); and
- Various valves, relief valves, and flanges.

B. Source Description

The two primary purposes of this facility are to compress and dry natural gas. At first, approximately 1.7 million cubic feet per day (MMCFD) of sweet natural gas enters the plant. The 500-hp compressor engine and the 650-hp compressor engine compress approximately 0.85 MMCFD natural gas from 1 pound per square inch gauge (psig) to 650 psig.

The second purpose of the complex is to "dry" the gas as it is being processed. The gas contains some moisture, which must be removed from the system prior to being sent into the transmission system. This is accomplished with a dehydrator, also commonly called a reboiler or glycol unit.

The gas is treated with a glycol solution, which absorbs the water in the gas stream. The glycol solution is then heated to about 350 degrees Fahrenheit to drive off the water and return the glycol. The water that is driven off is released to the atmosphere. The heat necessary for this activity is generated by burning natural gas in the dehydrator reboiler. After dehydration, approximately 0.13 MMCFD of dry gas is used as fuel by the compressor engines.

C. Permit History

On April 5, 1995, Hadson Gas Gathering & Processing Company (Hadson) was issued Permit **#2843-00** for the operation of their compressor station and associated equipment, located in SE¼ of the SE¼ of Section 35, Township 33 North, Range 1 West, in Toole County, Montana. The facility was permitted to operate four compressor engines, one heater, one tank, and various valves, relief valves, and flanges.

On December 17, 1999, the Department of Environmental Quality (Department) received a complete Montana Air Quality Permit Application from Spectrum Energy, Inc. (Spectrum). Spectrum notified the Department that Spectrum had purchased the facility from Hadson. In addition, Spectrum requested that several pieces of equipment be removed from the permit and several other pieces of equipment be added to the permit. Specifically, this permit action

removed a 230-hp Ajax DPC-230 compressor engine, a 425-hp Caterpillar G-398-NA compressor engine, and a 500-hp Caterpillar G-398 compressor engine from the permit. In addition, a 650-hp White Superior compressor engine, a NATCO reboiler, and an MYCM refrigeration unit were added to the permit. Further, the rule references and permit format were updated. Permit #**2843-01** replaced Permit #2843-00.

On April 7, 2005, the Department received a letter from TGC and Spectrum requesting that Permit #2843-01 be transferred from Spectrum to TGC. The permit action changed the name on the permit from Spectrum to TGC. In addition, the permit was updated to reflect current permit language and rule references used by the Department. Permit **#2843-02** replaced Permit #2843-01.

D. Current Permit Action

On July 20, 2005, the Department received a letter from TGC updating the permitted equipment listed in Section I.A of the permit analysis. One 1978, 650- hp White Superior 6G825 compressor engine and one 1981 0.750- MMBtu/hr Hycon 81-91 heater were removed from the facility. Permit **#2843-03** replaces Permit #2843-02.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department. Upon request, the Department will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 – General Provisions, including but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq*., Montana Code Annotated (MCA).

TGC shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than four hours.

5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2 – Ambient Air Quality, including, but not limited to the following:

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}

TGC must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 – Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over six consecutive minutes.

2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, TGC shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.

4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.

5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. (4) Commencing July 1, 1972, no person shall burn liquid or solid fuels containing sulfur in excess of 1 pound of sulfur per million Btu fired. (5) Commencing July 1, 1971, no person shall burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions. TGC will burn pipeline quality natural gas in its fuel burning equipment, which will meet this limitation.

6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device as described in (1) of this rule.

7. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR 60, Standards of Performance for New Stationary Sources (NSPS). This facility is not an NSPS affected source because it does not meet the definition of any NSPS subpart defined in 40 CFR 60.

   TGC is not an NSPS affected source because it does not meet the definition of a natural gas processing plant defined in 40 CFR 60, Subpart KKK. The MYCM Refrigeration Unit is not capable of fractionating gases.

8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR 63, shall comply with the requirements of 40 CFR 63, as listed below:

   40 CFR 63, Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities. Owners or operators of oil and natural gas production facilities, as defined and applied in 40 CFR Part 63, shall comply with the applicable provisions of 40 CFR Part 63, Subpart HH. In order for a natural gas production facility to be subject to 40 CFR Part 63, Subpart HH requirements, certain criteria must be met. First, the facility must be a major source of Hazardous Air Pollutants (HAP) as determined according to paragraphs (a)(1)(i) through (a)(1)(iii) of 40 CFR 63, Subpart HH. Second, a facility that is determined to be major for HAPs must also either process, upgrade, or store hydrocarbon liquids prior to the point of custody transfer, or process, upgrade, or store natural gas prior to the point at which natural gas enters the natural gas transmission and storage source category or is delivered to a final end user. Third, the facility must also contain an affected source as specified in paragraphs (b)(1) through (b)(4) of 40 CFR Part 63, Subpart HH. Finally, if the first three criteria are met, and the exemptions contained in paragraphs (e)(1) and (e)(2) of 40 CFR Part 63, Subpart HH do not apply, the facility is subject to the applicable provisions of 40 CFR Part 63, Subpart HH. Based on previous information submitted by TGC, the facility is not subject to the provisions of 40 CFR Part 63, Subpart HH because the facility is not a major source of HAPs.

   40 CFR 63, Subpart HHH National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities. Owners or operators of natural gas transmission or storage facilities, as defined and applied in 40 CFR Part 63, shall comply with the standards and provisions of 40 CFR Part 63, Subpart HHH. In order for a natural gas transmission and storage facility to be subject to 40 CFR Part 63, Subpart HHH requirements, certain criteria must be met. First, the facility must transport or store natural gas prior to the gas entering the pipeline to a local distribution company or to a final end user if there is no local distribution company. In addition, the facility must be a major source of HAPs as determined using the maximum natural gas throughput as calculated in either paragraphs (a)(1) and (a)(2) or paragraphs (a)(2) and (a)(3) of 40 CFR Part 63, Subpart HHH. Second, a facility must contain an affected source (glycol dehydration unit) as defined in paragraph (b) of 40 CFR Part 63, Subpart HHH. Finally, if the first two criteria are met, and the exemptions contained in paragraph (f) of 40 CFR Part 63, Subpart HHH, do not apply, the facility is subject to the applicable provisions of 40 CFR Part 63,

Subpart HHH. Based on previous information submitted by TGC, the facility is not subject to the provisions of 40 CFR 63, Subpart HHH because the facility is not a major source of HAPs.

D. ARM 17.8, Subchapter 5 – Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. TGC was not required to submit a fee because the current permitting action is administrative.

2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by the Department. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

   An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that prorate the required fee amount.

E. ARM 17.8, Subchapter 7 – Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit alteration to construct, alter, or use any air contaminant sources that have the Potential to Eemit (PTE) greater than 25 tons per year of any pollutant. TGC has a PTE greater than 25 tons per year of nitrogen oxides (NO_X) and carbon monoxide (CO); therefore, an air quality permit is required.

3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.

4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, alteration, or use of a source. TGC was not required to submit an application because the current permitting action is administrative. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. TGC was not required to submit an affidavit of publication of public notice because the current permitting action is administrative.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The BACT analysis is discussed in Section III of this permit analysis.

8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.

9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving TGC of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.

10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.

11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than one year after the permit is issued.

12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.

14. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8, Subchapter 8 – Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.

2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification, with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source since this facility is not a listed source and the facility's PTE is below 250 tons per year of any pollutant (excluding fugitive emissions).

G. ARM 17.8, Subchapter 12 – Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any source having:

a. PTE greater than 100 tons per year of any pollutant;

b. PTE greater than 10 tons per year of any one HAP, PTE greater than 25 tons per year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or

c. PTE greater than 70 tons per year of particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) in a serious PM_{10} nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program. (1) Title V of the FCAA amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #2843-03 for TGC, the following conclusions were made:

a. The facility's PTE is less than 100 tons per year for any pollutant.

b. The facility's PTE is less than 10 tons per year for any one HAP and less than 25 tons per year for all HAPs.

c. This source is not located in a serious PM_{10} nonattainment area.

d. This facility is not subject to any current NSPS.

e. This facility is not subject to any current NESHAP standards.

f. This source is not a Title IV affected source, nor a solid waste combustion unit.

g. This source is not an EPA designated Title V source.

Based on these facts, the Department determined that TGC would be a minor source of emissions as defined under Title V.

III. BACT Determination

A BACT determination is required for each new or altered source. TGC shall install on the new or altered source the maximum air pollution control capability, which is technically practicable and economically feasible, except that BACT shall be utilized. A BACT determination was not required for the current permit action because the current permit action is considered an administrative permit action.

IV. Emission Inventory

Ton/year					
Source	**PM_{10}**	**NO_X**	**VOC**	**CO**	**SO_X**
500-hp Caterpillar G-398	0.22	9.68	4.82	14.50	0.00
NATCO Reboiler	0.01	0.11	0.01	0.02	0.00
Totals	**0.49**	**22.36**	**11.09**	**33.35**	**0.01**

500-hp Caterpillar G-398

Brake Horsepower: 500 Bhp
Hours of operation: 8,760 hr/yr
Fuel Consumption: 43,800,000 ft^3/yr (Company Information)

TSP Emissions
Emission Factor: 10 lb/$MMft^3$ (2-02-002-02, AFSSCC page 32)
Calculations: 43,800,000 ft^3/yr * 10.0 lb/$MMft^3$ gas * 1yr/8,760 hr = 0.05 lb/hr
0.05 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 0.22 ton/yr

PM_{10} Emissions
Emission Factor: 10 lb/$MMft^3$ (2-02-002-02, AFSSCC page 32)
Calculations: 43,800,000 ft^3/yr * 10.0 lb/$MMft^3$ gas * 1yr/8,760 hr = 0.05 lb/hr
0.05 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 0.22 ton/yr

NO_X Emissions
Emission factor: 2.0 gram/bhp-hr (BACT Determination)
Calculations: 2.0 gram/bhp-hr * 500 bhp* 0.002205 lb/gram = 2.21 lb/hr
2.21 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 9.68 ton/yr

VOC Emissions
Emission factor: 1.0 gram/bhp-hr (BACT Determination)
Calculations: 1.0 gram/bhp-hr* 500 bhp* 0.002205 lb/gram = 1.10 lb/hr
1.10 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 4.82 ton/yr

CO Emissions
Emission factor: 3.0 gram/bhp-hr (BACT Determination)
Calculations: 3.0 gram/bhp-hr * 500 bhp* 0.002205 lbs/gram = 3.31 lb/hr
3.31 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 14.50 ton/yr

SO_X Emissions
Emission factor: 0.0020 gram/bhp-hr (AP-42, Table 3.2-1)
Calculations: 0.0020 gram/bhp-hr * 500 bhp * 0.002205 lb/gram = 0.0022 lb/hr
0.0022 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 0.00 ton/yr

NATCO Reboiler

Hours of operation: 8,760 hr/yr
Fuel Consumption: 250 ft^3/hr (Company Information)

TSP Emissions
Emission Factor: 5 lb/$MMft^3$ (AP-42, 1.4-1)
Calculations: 250.0 ft^3/hr * 8,760 hr/yr * 5 lb/MM ft^3 * 0.0005 ton/lb = 0.01 ton/yr

PM_{10} Emissions
Emission Factor: 5 lb/MMft^3 (AP-42, 1.4-1)
Calculations: 250.0 ft^3/hr * 8,760 hr/yr * 5 lb/MM ft^3 * 0.0005 ton/lb = 0.01 ton/yr

NO_X Emissions
Emission Factor: 100 lb/MMft^3 (AP-42, 1.4-1)
Calculations: 250.0 ft^3/hr * 8,760 hr/yr * 100 lb/MM ft^3 * 0.0005 ton/lb = 0.11 ton/yr

VOC Emissions
Emission Factor: 8 lb/MMft^3 (AP-42, 1.4-1)
Calculations: 250.0 ft^3/hr * 8,760 hr/yr * 8 lb/MM ft^3 * 0.0005 ton/lb = 0.01 ton/yr

CO Emissions
Emission Factor: 20 lb/MMft^3 (AP-42, 1.4-1)
Calculations: 250.0 ft^3/hr * 8,760 hr/yr * 20 lb/MM ft^3 * 0.0005 ton/lb = 0.02 ton/yr

SO_X Emissions
Emission Factor: 0.6 lb/MMft^3 (AP-42, 1.4-1)
Calculations: 250.0 ft^3/hr * 8,760 hr/yr * 0.6 lb/MM ft^3 * 0.0005 ton/lb = 0.00 ton/yr

MYCM Refrigeration Unit

Emissions from the MYCM refrigeration unit and its corresponding storage tank are considered negligible because the operation is a closed system and is contained under pressure. The fugitive VOC emissions from the transfer of the condensed product from this facility are also considered to be negligible because the transfer lines are also pressurized. The flanges and connections of this unit are state-of-the-art, further preventing any loss of product, which would also reduce emissions.

V. Existing Air Quality

Exxon Mobil is located in SE¼ of the SE¼ of Section 35, Township 33 North, Range 1 West, in Toole County, Montana. Toole County is considered attainment for all criteria pollutants.

VI. Ambient Air Impact Analysis

The current permit action will not increase emissions from the facility. The emissions from the facility will remain less than the emission levels that were modeled as part of Permit Action #2843-00. The modeling did not indicate any problems in complying with the annual or hourly NO_2 ambient standards. Therefore, the facility is not expected to cause a violation of any state or federal ambient air quality standard.

VII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications.

VIII. Environmental Assessment

The current permit action will not result in an increase of emissions from the facility and is considered an administrative action; therefore, an Environmental Assessment is not required.

Analysis Prepared By: Chris Ames
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